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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,978	05/25/2001	Masood Mortazavi	SUNIP820/P5884	6345

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EXAMINER

EL HADY, NABIL M

ART UNIT PAPER NUMBER

2154

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/865,978	Applicant(s) MORTAZAVI ET AL.	
	Examiner Nabil M. El-Hady	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/7/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-44 are pending in this application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 3-10, 12-16, 18-25, 27-31, 33-38, and 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over iplanet Application Server 6.0 White Paper, Technical Reference Guide, Sun Microsystems, May 25,2000, hereafter "Sun" in view of Reynolds et al. (Threads: A programming Construct for Reliable real-time Distributed Computing), hereafter "Reynolds".
4. Sun and Reynolds are cited by the applicant in IDS papers files on 11/21/2003 and 1/14/2004.
5. As per claims 1, 10, 16, 25, 31, 38, 43, and 44, Sun teaches a computer-implemented method for a first component to invoke a second component asynchronously in an object-oriented computing environment, the computer-implemented method comprising: receiving a request from a first component to invoke a second component (e.g. page 23, iplanet Application Server diagram); maintaining the scope of the received request (page 23, lines 1-5), providing a thread for identifying the received request and invoking the second component (page 26, lines 1-15).
6. Sun does not explicitly disclose the thread identifies an exception Listener for handling

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exceptions associated with the invocation of the second component. Reynolds, on the other hand, discloses an exception Listener for handling exceptions associated with the invocation of the second component (Sec. 5, Exceptions, Sec. 5.1, Exception specification, and Sec. 5.2 Exception handling). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Sun and Reynolds because Reynolds providing of an exception handling would complement the invocation nature of a component discloses by Sun and allow the exception blocks to work well with a typical distributed environment. In addition, Exception handling would provide the programmer with a means of coping with the asynchronous exceptions that commonly occur within large, complex distributed real-time system (see, Reynolds, Sec. 5.1).

7. As per claims 3, 12, 18, 27, 33, and 40, Sun discloses the request is associated with no application specific exceptions (e.g. page 91, "Enterprise Connectors).

8. As per claims 4, 13, 19, 28, 34, and 41, Sun discloses the first and second components are associated with separate servers (e.g. page 9, "improved Performance, Scalability and Reliability).

9. As per claims 5, 14, 20, 29, 35, and 42, Sun discloses the first and second components are Enterprise Java Bean components (e.g. page 12, "Application Model").

10. As per claims 6, 15, 21, 30, and 36, Sun, discloses the first and second components are associated with a container (e.g. page 28, "Services Hosted by KJS Only", EJB container).

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11. As per claims 7 and 22, Sun discloses placing the request from the first component in a queue (e.g. page 26, lines 1-11).

12. As per claims 8, 23, and 37, Sun discloses the worker thread dequeues the received request after receiving a transaction commit signal from the container (e.g. page 44, "How the Servlet Engine Allocates Resources").

13. As per claims 9 and 24, Reynolds discloses the exception Listener receives the exception and the scope of the exception. (Sec. 5.1, Exception Specification).

14. Claims 2, 11, 17, 26, 32, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun in view of Reynolds as applied to claims 1, 3-10, 12-16, 18-25, 27-31, 33-38, and 40-44 above, and further in view of Katrina E. Kerry Falkner et al., Implementing Asynchronous Remote Method invocation in Java, July 2, 1999, hereafter "Falkner".

15. As per claims 2, 17, 32, and 39, Sun and Reynolds do not specifically disclose the request has a return type of void. Falkner, on the other hand, discloses the request has a return type of void (e.g. page 4, "package Server Tests" AsyncHl method). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sun, Reynolds and Falkner. The motivation would have been to invoke a component without returning any value; hence using a void return type.

16. As per claims 11 and 26, Sun and Reynolds do not specifically disclose the asynchronous proxy has the same type as the second component. Falkner, on the other hand,

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discloses the asynchronous proxy has the same type as the second component (e.g. page 4, "package ServerTests", AsyncHl method). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sun, Reynolds and Falkner in order to allow invoking a component asynchronously without returning any value; hence using a void return type.

17. Applicant's arguments filed 1/7/2005 have been fully considered but they are not persuasive. Therefore rejection of claims 1-44 is maintained.

18. In the remarks, applicants argued in substance that (1), Sun does not disclose a scope or identifier for the received request "as cited in claims 1, 16, 31, and 43", (2), Sun and Reynolds does not teach or suggest an exception listener that is stateless, and that can handle a plurality of types of exceptions from a plurality of different components.

19. Examiner respectfully traverses applicants' remarks.

20. As to point (1), Sun does inherently disclose a scope or identifier for the received request as disclose in p. 23. The KXS process first has to identify the processes that arrive in order to forward them to the correct Server process. An identifier has to be attached to each process in order for the KXS to be able to identify the process as Java or C++. Furthermore the scope of the process may be identified by the number of threads that are established for each process within its memory space. Finally, the results are returned to the web server and send on to the client browser in accordance with their identification which is maintained during the process.

21. As to point (2), using one, reusable, exception listener that can handle a plurality of types of exceptions from a plurality of different components, i.e. stateless, is always preferable than registering a new exception listener for each component and each type. It would have been obvious to one skilled in the art at the time of the invention to adopt the stateless design concept as the design choice in order to enhance the speed of process execution.

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil M El-Hady whose telephone number is (703) 308-7990. The examiner can normally be reached on 9:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 29, 2005


Nabil El-Hady, Ph.D., M.B.A.
Primary Patent Examiner
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